		1449A/PTO (Modified) neets as necessary)	Attorney Docket No.: 002489P015X2		ication Number: 789,299
			First Named Inventor: Jose P. Pereira		
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	,	OTHER ART - NO PATENT	LITERATURE DOCUMEN	TS	
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL L of the item (book, magazine, journal, seria issue number(s), publisher,		e, page(s), vol	
S		Motorola Semiconductor Technical Dat MCM69C432, January 1996, 4 pages.	a, "Advanced Information 16	K X 64 CAM	,
V		Advanced Micro Devices, "Final Am990 Publication No. 08125, Rev. G, December		essable Memo	ory"
X)		T.V. Lakshman and D. Stiliadis, "High-S Efficient Multi-dimensional Range Mate			sing
M		Xipeng Xiao and Lionel M. Ni, "Internet March/April 1999, pp. 8-18.	t QoS: A Big Picture," <u>IEEE N</u>	<u>letwork</u> ,	
W)		"White Paper - Introduction to QoS Poli	cies," <u>Stardust.com</u> , 1999, pp	. 1-22.	
Y		"Policy-Based Routing," <u>Cisco Systems,</u>	<u>Inc.</u> , 1996, pp. 1-7.		
W	J	Patent Abstracts of Japan, Application 1	No. 09279525, Filed Septembe	er 26, 1997.	
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Examiner Signature		B &	Date Consi	idered	0/16/06

^{*}Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

¹Unique citation designation number. ²Applicant is to place a check mark here if English language Translation is attached.

	n 1449A/PTO (Modified) sheets as necessary)	Attorney Docket No.: 002489P015X2	1	Application 10/789,299			
		First Named Inventor Jose P. Pereira					
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Examiner Cite Initials* No1	Include name of the author (in CAPITAL I of the item (book, magazine, journal, seri	al, symposium, catalog, etc	.), date, page(Translation ²		
	issue number(s), publisher, city and/or country where published Ian N. Robinson, "Pattern Addressable Memory", IEEE Micro, June 1992, pp. 20-30.						
3	Ian N. Robinson, "Pattern Addressable	Memory", IEEE Micro, J	une 1992, pp	o. 20-30.			
	GEC Plessey Semiconductors, "P2800 2 Memory", Preliminary Information, Fel	bruary 1997, pp. 1-15.					
•	GEC Plessey Semiconductors, "P2800 N Functional Product Specification GPS-I			ory",			
d	Patent Abstracts of Japan, Publication I	No. 08273376, Publication	n date 10/18	/96.			
	Sergio R. Ramirez-Chavez, "Encoding I Addressable Memories", Transaction B II: Analog and Digital Signal Processin	riefs, IEEE Transactions	on Circuits a	ınd System-			
	Keikichi Tamaru, "The Trend of Function Special Issue on LSI Memories, IEICE Topp. 1545-1554.						
	Hiroshi Kadota et al., "An 8kbit Conten Journal of Solid-State Circuits, Vol. SC-						
	Landrock et al., "Associative Storage M 25, No. 5, October 1992, pp. 2341-2342.	odule", IBM Technical D	isclosure Bu	lletin, Vol.			
	Music Semiconductors, "MU9C1480 LA pp. 1-11.						
	Music Semiconductors, "MUAA™ CAN 1998, Rev. 0, pp. 1-16.	M Family" Advanced Info	ormation, Fe	bruary 24,			
Examiner Signature	the BOW		Date Considered	blick	66		

^{*}Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

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	Substitute for Form 1449A/PTO (Modified) (use as many sheets as necessary)		Attorney Docket No.: 002489P015X2	Application 10/789,299	
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Examiner Initials*	Cite No ¹	of the item (book, magazine, journal	TAL LETTERS), title of the article (when , serial, symposium, catalog, etc.), date, sher, city and/or country where publisl	page(s), volume-	Translation ²
(Y)		KLSI KE5B064H Series Address Pr 1995 or early 1996).	ocessor Ver. 1.0.1 (believed to be pu	ıblished in late	
1		Kanad Ghose, "Response Pipelined International Conference on VLSI	I Cam Chips: The First Generation and Design, January 1994, pp. 365-368.	and Beyond,", 7th	
		Anthony McAuley et al., "A Self-To State Circuits, Vol. 26, No. 3, Marc	esting Reconfigurable CAM", IEEE J h 1991 pp. 257-261.	ournal of Solid-	-
			ent-Addressable Memory for ATM S al Solid-State Circuits Conference, Fe		
			ressable Memory for VLSI Pattern Ir . 23, No. 1, February 1988, pp. 74-78		
			Purpose Content Addressable Memo E Journal of Solid-State Circuits, Vol		
		Pankaj Gupta et al., "Routing Look Infocom, April 1998, 8 pgs.	ups in Hardware at memory Access	Speeds", Proc.	
		Multi-gigabit IP Forwarding", Tech pp. 7-12.	Mpps Longest Prefix Match Search E unical Report of IEICE IN08-119, No	vember 1998,	
		Takeshi Ogura et al., "A 4kbit Assocircuit, Vol. SC-20, No. 6, Decembe	ociative Memory LSI", IEEE Journal or 1985, pp. 1277-1284.	of Solid State	
Sm			ociative Memory for High Speed Pa d-State Circuits, Vol. 23, No. 2, Apri		

Examiner Signature	129	Date Considered	6/4/6	

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

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Examiner Initials*	Cite No ¹	of the item (book, magazine, journ	ITAL LETTERS), title of the article (when al, serial, symposium, catalog, etc.), date, disher, city and/or country where publis	page(s), volume-	Translation ²
D			able Lookup Engine for Ipv6 Longest ference, Vol. 2, page(s) 1576-1581, 199		
			g Lookup Scheme and Hardware Ard IEEE Journal Selected Areas in Comi		
			okup Scheme For Gigabit Switching R nce of the IEEE Computer and Comm 1999.		·
			ne," Document No. S13450EJ3V0PF00) (3 rd edition),	
		Pankaj Gupta and Nick McKeow SIGCOMM (September 2, 1999), 1	n, "Packet Classification on Multiple 1 14 pages.	Fields,"	
		V. Srinivasan, et al., "Packet Class (September 2, 1999), 12 pages.	sification using Tuple Space Search,"	SIGCOMM	
		MUSIC Semiconductors, Advance Family," (October 1, 1998), Rev. 1	e Information, "MUAA Routing CoPi b, pages 1-16.	ocessor (RCP)	
		Music Semiconductors, MU9C248 1995, pp. 1-24.	80 LANCAM, Preliminary Data Shee	t, August 25,	
1		Music Semiconductors, MU9C148	80 LANCAM Handbook, November	1994.	
37		KLSI KE5B064A1 Address Proces late 1995 or early 1996).	sor Ver. 2.0.2 Preliminary (believed t	o be published	

Examiner	Date	C / 1/2 /
Signature	Considered	6/16/012

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			Filing Date: 2/26/04			
		OTHER ART - NO PATENT	LITERATURE DOCUMENTS			
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL L. of the item (book, magazine, journal, seria issue number(s), publisher, o			Translation ²	
9		Waldvogel et al. "Scalable High-Speed F Computer Systems (TOCS), Vol. 19, pag		ns on		
		Srinivasan et al., "Fast Address Lookups Transactions on Computer Systems (TO				
		Waldvogel et al., "Scalable High Speed I SIGCOMM '97 Conference on Applicati for Computer Communication, pages 19	ons, Technologies, Architectures, a			
		Engineers, Technical Report of IEICE, IN	N08-119 (1998-11), pages 7-12.	·		
	4	Japanese Patent Abstract, Publication N page.	o. 04021997A, published January 2	4, 1992, 1		
	j	Japanese Patent Abstract, Publication N	o. 05182472A, published July 23, 1	993, 1 page.		
		MOSAID, The Next Generation of Conto Technologies Incorporated, September 1		ID		
	/	C.C. Wang and I.H. Horng, "Realization Pseudo-Parallel Searching Approach, 19 Networks, Vol. 3, pp. 1502-1507, Decem	995 IEEE International Conference			
		Kobayashi, M. et al., "A Processor Based Engine", IEEE Workshiop on High Perfo 239, 2001.	ormance Switching and Routing, pa	age(s) 233-		
M		Kobayashi, M. et al. "A Longest Prefix M Processing", IEEE International Conferent 1364, 2000.				

Examiner Signature	See	Date Considered	6/16/26	
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^{*}Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

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Substi		Form 1449A/PT nany sheets as neces			ttorney Docket No.: 02489P015X2	plication Numb /789,299	er:
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				U.S. PATENT	DOCUMENTS		
Exam. Initial*	Cite No. ¹	U.S. Patent Number Code ²	Nind (If known)		of Patentee or Applicant of Cited Document	 Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant
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			FOR	EIGN PATENT DOCUMENTS			
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Initial I	No.1	Office3	Number Kind Code (If known)	of Cited Document	Publication of Cited Document MM-DD- YYYY	Columns, Lines, Where Relevant Passages or Relevant Figures Appear	•
S		EP	0944093A1	NEC Corporation	9/2/99		
X		EP	0774758A2	Cirrus Logic	5/21/97		
		EP	0660332A1	HAL Computer Systems, Inc.	6/28/95		
		EP	0381249A2	NEC Corporation	8/8/90		
		EP	0267612A2	NEC Corporation	5/18/88		
		EP	0872802A2	NEC Corporation	10/21/98		
1/		Japan	08167295	Kawasaki Steel Corporation	6/25/96		
W		PCT	WO98/12651	Motorola Inc.	3/26/98		
		PCT	WO99/31581	IP Semiconductors	6/24/99		
3		PCT	WO01/11630A1	Fast-Chip Incorporated	2/15/01		

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	 				1/30/01		
	6,237,061		Sı	rinivasan	5/22/01		
	6,266,262		Was	hburn et al.	7/24/01		
	6,289,414		Feld	meier et al.	9/11/01		
	6,353,873		N	Melchior	3/5/02		
/	6,362,993		Hend	derson et al.	3/26/02		
	6,467,019		N	/ashburn	10/15/02		
	6,502,163		Ra	mankutty	12/31/02		
		FOR	EIGN PATENT	DOCUMENTS			
Cite No.1		tent Document			Date of Publication of Cited Document MM-DD- YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ₆
	No.1	No.1 Number Code ² 6,175,514 6,181,698 6,237,061 6,266,262 6,289,414 6,353,873 6,362,993 6,467,019 6,502,163 Cite Foreign Pa	Cite No.1 Number Kind	Jose Filin 2/22	Jose P. Pereira Filing Date: 2/26/04	Jose P. Pereira Filing Date: 2/26/04	Jose P. Pereira Filing Date: 2/26/04

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¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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Substi		Form 1449A/PT		Attorney Docket No.: 002489P015X2	Application Numb 10/789,299	er.
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Exam. Initial*	Cite No. ¹	U.S. Patent Number Code ²	Kind (If known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
J.		6,011,795		Varghese et al.	1/4/00	
Λ.		6,044,005		Gibson et al.	3/28/00	
		6,065,064		Satoh et al.	5/16/00	
		6,069,573		Clark, II et al.	5/30/00	
		6,081,440		Washburn et al.	6/27/00	
		6,108,227		Voelkel	8/22/00	
W		6,115,365		Newberg et al.	9/5/00	
87		6,144,574		Kobayashi et al.	11/7/00	

Exam.	Cite	Foreign Patent Document			Name of Patentee or Applicant	Date of	Pages,	T6
Initial *	No.¹	Office ³	Number ⁴	Kind Code ⁵ (If known)	of Cited Document	Publication of Cited Document MM-DD- YYYY	Columns, Lines, Where Relevant Passages or Relevant Figures Appear	

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Exam. Initial*	Cite No. ¹	U.S. Patent Number Code ²	Document Kind (If known)	Na	ame of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
SS.		5,940,852			Rangasayee	8/17/99	
7		5,946,704			Yoneda et al.	8/31/99	
		5,949,696			Threewitt	9/7/99	
		5,949,734	-		Matano	9/7/99	
		5,978,885			Clark, II	11/2/99	
11		5,999,435			Henderson et al.	12/7/99	
		6,000,008			Simcoe	12/7/99	
37		6,006,306			Haywood, et al.	12/21/99	

Exam.	Cite		Foreign Pate	ent Document	Name of Patentee or Applicant	Date of	Pages,	T6
Initial •	No.¹	Office	Number ⁴	Kind Code ⁵ (If known)	of Cited Document	Publication of Cited Document MM-DD- YYYY	Columns, Lines, Where Relevant Passages or Relevant Figures Appear	4

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13		5,828,324			Clark, II		10/27/98		11.
K		5,841,874			Kempke et al.		11/24/98		
		5,860,085			Stormon et al.		1/12/99		
		5,870,324			Helwig		2/9/99		
		5,893,931			Peng et al.		4/13/99		
N /		5,920,886			Feldmeier		7/6/99		
0.1		5,930,359			Kempke et al.		7/27/99		
W		5,933,363			Shindo		8/3/99		
9									
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14		5,649,149		Stormon et al.	7/15/97	
X		5,699,288		Kim et al.	12/16/97	
		5,706,224		Srinivasan, et al.	1/6/98	
		5,740,098		Adams et al.	4/14/98	
	,	5,745,488		Thompson et al.	4/28/98	
		5,752,069		Roberts et al.	5/12/98	
		5,818,786		Yoneda	10/6/98	
W		5,818,873		Wall et al.	10/6/98	

				FOREIG	N PATENT DOCUMENTS			
Exam. Initial	Cite No.1			ent Document	Name of Patentee or Applicant of Cited Document	Date of Publication	Pages, Columns,	T6
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			U.S. PATEN	NT DOCUMENTS			
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		5,592,432		Vishlitzky et al.	1/7/97		
	Ī	5,598,115		Holst	1/28/97		
		5,615,135		Waclawsky et al.	3/25/97		
		5,619,676		Fukuda et al.	4/8/97		
		5,621,677		Jones	4/15/97		
7 W		5,642,114		Komoto	6/24/97		
T N		5,642,322		Yoneda	6/24/97		
M.		5,646,878		Samra	7/8/97		
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			FOREIGN PAT	TENT DOCUMENTS			
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'Unique citation designation number. 'See attached Kinds of U.S. Patent Documents. 'Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). 'For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. 'Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 'Applicant is to place a check mark here if English language Translation is attached.

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37		5,467,319			Nusinov et al.	11/14/9	5
X		5,469,161			Bezek	11/21/9	5
		5,475,825			Yonezawa et al.	12/12/9	5
		5,485,418			Hiraki et al.	1/16/96	5
		5,490,102		_	Jubran	2/6/96	
		5,491,703			Barnaby et al.	2/13/96	5
V'Y		5,513,134			Cooperman et al.	4/30/96	5
M		5,517,441			Dietz et al.	5/14/96	5

Exam.	Cite		Foreign Pate	ent Document	Name of Patentee or Applicant	Date of	Pages,	Т
Initial •	No.1	Office ³	Number ⁴	Kind Code ^s (If known)	of Cited Document	Publication of Cited Document MM-DD- YYYY	Columns, Lines, Where Relevant Passages or Relevant Figures Appear	

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				Filing Date: 2/26/04		
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Exam. Initial*	Cite No. ¹	U.S. Patent Number Code ²	Document Kind (If known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
L		5,414,704		Spinney	5/9/95	
1		5,422,838		Lin	6/6/95	
1		5,440,709		Edgar	8/8/95	
		5,440,715		Wyland	8/8/95	
		5,446,685		Holst	8/29/95	
		5,454,094		Montove	9/26/95	
17		5,455,576		Clark, II et al.	10/3/95	
K		5,465,335		Anderson	11/7/95	

		4		FORE	GN PATENT DOCUMENTS			
_	Cite	Foreign Patent Document			Name of Patentee or Applicant	Date of	Pages,	Т6
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				First Named Inventor: Jose P. Pereira		
				Filing Date: 2/26/04		
			U.S.	PATENT DOCUMENTS		
Exam. Initial*	Cite No. ¹	U.S. Patent Number Code ²		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
2		5,265,100		McClure et al.	11/23/93	
		5,319,590		Montoye	6/7/94	
		5,319,763		Ho et al.	6/7/94	
1		5,339,268		Machida	8/16/94	
	,	5,383,146		Threewitt	1/17/95	
		5,388,189		Kung	2/7/95	
X		5,396,449		Atallah et al.	3/7/95	
V		5,406,508		Hayashibara	4/11/95	

				FOREIC	ON PATENT DOCUMENTS			
Exam.	Cite		Foreign Pate	ent Document	Name of Patentee or Applicant	Date of	Pages,	T6
Initial +	No. ¹	Office ³	Number	Kind Code ⁵ (If known)	of Cited Document	Publication of Cited Document MM-DD- YYYY	Columns, Lines, Where Relevant Passages or Relevant Figures Appear	

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			U.S.	PATENT DOCUMENTS		
Exam. Initial*	Cite No. ¹	U.S. Patent Number Code ²	Document Kind (If known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
h		5,036,486		Noguchi et al.	7/30/91	
X		5,051,948		Watabe et al.	9/24/91	
1		5,053,991		Burrows	10/1/91	
-		5,072,422		Rachels	12/10/91	
	/	5,107,501		Zorian	4/21/92	
1		5,111,427		Kobayashi et al.	5/5/92	
M.		5,226,005		Lee et al.	7/6/93	
N/A		5,239,642		Gutierrez et al.	8/24/93	

Exam. Cite	Foreign Patent Document			Name of Patentee or Applicant	Date of	Pages,	1 76	
Initial *	No.1	Office ³	Number ⁴	Kind Code ⁵ (If known)	of Cited Document	Publication of Cited Document MM-DD- YYYY	Columns, Lines, Where Relevant Passages or Relevant Figures Appear	

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				U.S. PATENT DOCUMENTS		
Exam. Initial*	Cite No.1	U.S. Patent Number Code ²	Nind (If known)	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
1		4,903,234		Sakaraba et al.	2/20/90	
/1		4,928,260		Chuang et al.	5/22/90	
,		4,958,377		Takahashi	9/18/90	
		4,959,811		Szezepanek	9/25/90	
Λ /		4,975,873		Nakabayashi et al.	12/4/90	
\mathbb{N}		4,996,666		Duluk, Jr.	2/26/91	
TY		5,010,516		Oates	4/23/91	
14		5,014,195		Farrell et al.	5/7/91	

		FOREIC	ON PATENT DOCUMENTS			
Foreign Patent Document			Name of Patentee or Applicant	Date of	Pages,	Т
Office	Number	Kind Code ^s (If known)	of Cited Document	Publication of Cited Document MM-DD- YYYY	Columns, Lines, Where Relevant Passages or Relevant Figures Appear	_
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Substitute for Form 1449A/PTO (Modified) (use as many sheets as necessary)					Attorney Docket No.: 002489P015X2	Application Nun 10/789,299	ıber:	
					First Named Inventor: Jose P. Pereira			
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a Ron		4,656,626			Yudichak et al.	4/7/87		
		4,670,858			Almy	6/2/87		
7		4,747,080	•		Yamada	5/24/88		
		4,758,982			Price	7/19/88		
		4,780,845			Threewitt	10/25/88		
\overline{A}		4,785,398			Joyce et al.	11/15/88		
		4,791,606			Threewitt et al.	12/13/88		
不		4,813,002			Joyce et al.	3/14/89		
W		4,845,668			Sano et al.	7/4/89		
		***	FO	REIGN PA	FENT DOCUMENTS			
Exam. Initial	Cite No.1	Foreign Pa Office ³ Number ⁴	tent Document Kind Codes (If known)		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD- YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶

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Initial*	No.1	Code ²	nd f known)	or Cited Document	MM-DD-YYYY	Lines, Where Relevant Passages or Relevant Figures Appear
0		3,257,646		Roth	6/21/66	
8		3,353,159		Lee, III	11/14/67	
4		3,602,899		Lindquist et al.	8/31/71	
		3,675,211		Raviv	7/4/72	
		3,685,020		Meade	8/15/72	A
		3,868,642		Sachs	2/25/75	
		4,112,502		Scheuneman	9/5/78	
4.	,	4,244,033		Hattori	1/6/81	
1	/	4,472,805		Wacyk et al.	9/18/84	
		4,523,301		Kadota	6/11/85	
VI		4,646,271		Uchiyama	2/24/87	

Exam. Cite	e	Foreign Pate	ent Document	Name of Patentee or Applicant	Date of	Pages,	T
Initial N	.1 Office	3 Number	Kind Code ⁵ (If known)	of Cited Document	Publication of Cited Document MM-DD- YYYY	Columns, Lines, Where Relevant Passages or Relevant Figures Appear	

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	U.S. Patent I Number Code ² 4,030,077 4,464,732			First Named Inventor: Jose P. Pereira Filing Date: 2/26/04 IT DOCUMENTS The of Patentee or Applicant of Cited Document	Date of Publicatic of Cited Documen MM-DD-YYYY	nt Colum	nns,
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Exam. Cite Initial* No.1	Number Code ² 4,030,077	Document Kind		me of Patentee or Applicant	of Cited Documer	nt Colum Lines, W	nns,
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						Passage Relevi Figur Appe	ant es or ant res
	4 464 732		Florence et a		6/14/77	1	
	., 101,732		Clark		8/7/84		
	4,611,280		Linderman	·	9/9/86		
	4,896,261		Nolan		1/23/90		
	4,991,134		Ivsin		2/5/91		
	5,068,822		Lawrence		11/26/91		
	5,247,688		Ishigami		9/21/93		
	5,317,756		Komatsu et a	1.	5/31/94		-
	5,423,015		Chung	•	6/6/95		
	6,014,732		Naffziger		1/11/00		
1 1/	6,108,747		Kaganoi		8/22/00		
MI	6,226,710		Melchior		5/1/01		
	6,493,791		Akkary		12/10/02		
		FO	REIGN PAT	TENT DOCUMENTS			
Exam. Cite	Foreign Paten			me of Patentee or Applicant	Date of	Pages,	T6
	Office ³ Number Code ⁵			of Cited Document	Publication of	Columns, Lines, Where Relevant Passages or Relevant Figures Appear	1"
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					Filing Date: 2/26/04		
				U.S. PATEN	IT DOCUMENTS		
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Y	•	6,460,112		Srinivasan et	al.	10/1/02	
M		6,499,081		Nataraj et al.		12/24/02	
<i>J</i> / ₂		6,539,455		Khanna et al.		3/25/03	
						·	
				1000			

Exam.	Cite	Fore	eign Patent D	ocument	Name of Patentee or Applicant	Date of	Pages,	Т6
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		1449A/PTO (Modified) neets as necessary)	Attorney Docket No.: 002489P015X2		Application Number: 10/789,299	
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OTHER ART - NO PATENT LITERATURE DOCUMENTS						
Examiner Cite Include name of the author (in CAPITAL LETTERS), title of the Initials* No1 of the item (book, magazine, journal, serial, symposium, catalo issue number(s), publisher, city and/or country				date, page		Translation ²
()		Masayoshi Kobayashi et al. "A 50 Mpps Longest Prefix Match Search Engine IC for Multi-gigabit IP Forwarding", The Institute of Electronics Information and Communication, 15 pages, 1998.				
		"SRAM-BASED COUNTERS", IBM Technical Disclosure Bulletin, Vol. 34, No. 12, May 1992, p. 269- 275.				
2		V. Srinivasan et al., "Fast and Scalable Layer Four Switching" ACM Applications, Technologies, Architectures, and Protocols for Computer Communication, page(s) 191-202, 1998.				
		Yehuda Afek et al. "Routing With a Clue", IEEE/ACM Transactions on Networking, Vol. 6, page(s) 693-705, 2001.				
M		Yehuda Afek et al. "Routing with a Clue", Computer Communication Review, ACM Sigcomm '99 Conference, 8/30/99-9/3/99, p. 203-213.				
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